PVM-X300

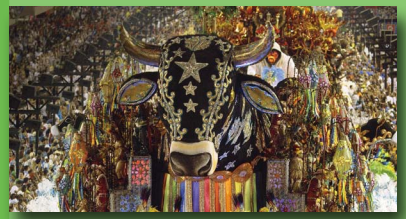
4K Professional Video Monitor

TRIMASTER 4K

SONY
make.believe

4K Cinema Production

4K Live Production



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4K Business and Industry Production

* Produced by TV Globo with the F65

TRIMASTER 4K

It's Time for 4K

Don't Miss the Wave;

Catch the PVM-X300 4K Monitor

Full-HD production has widely impacted the broadcast and video production industry, yet now another wave is forming – the 4K content creation wave. Its rise is rapid, and it looks set to dramatically change the content creation industry, especially digital cinema.

Seeing this wave develop, you may be looking around for a versatile, dependable 4K video monitor. You can catch one right now – a right-size, easy-to-use monitor for every element of the production workflow including 4K cinema production (onset monitoring, dailies, and editing), 4K live production (camera control and program preview) and real-time 4K presentation.

Sony is proud to introduce the PVM-X300, 30-inch*1 true 4K (4096 x 2160 pixels) resolution LCD video monitor, ideal for 4K previewing in onset and editing applications.

The PVM-X300 monitor realizes true 4K resolution in a portable 30-inch size. It's packed with features such as a wide-viewing-angle IPS LCD panel, and versatile input interfaces including 3G/HD-SDI x 4, HDMI x 4 and DisplayPort*2 x 2 inputs. In addition, it delivers a user-application-oriented monitor control system, and supports an optional SxS 4K player.*2

Want to review immediately the 4K images from your camera without an external box, and would you like to free yourself from complicated wired connections? It's easy with an optional SxS 4K player. Combine the PVM-X300 4K video monitor with this player to achieve an integrated total workflow with Sony's PMW-F55 4K cameras.

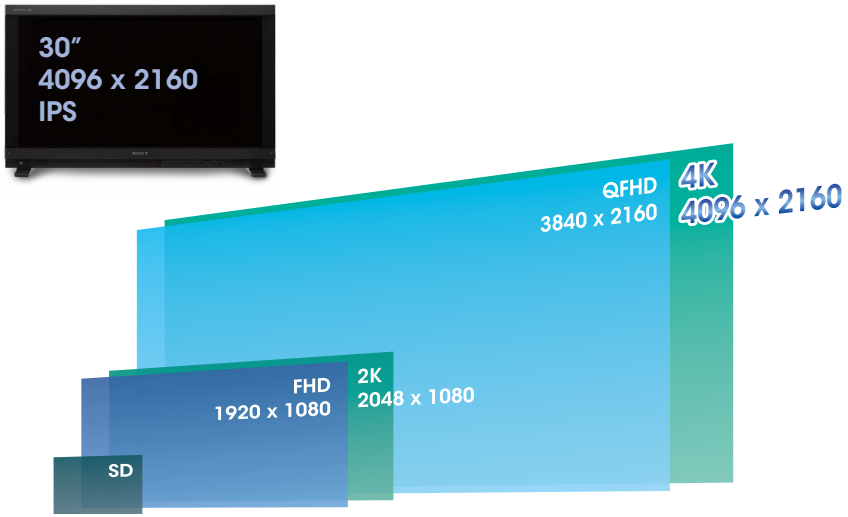
Catch every advantage of the 4K wave not just in film and TV production, but also in a wide range of other applications. The PVM-X300 is also ideal in industrial design and visualization systems, computer graphics systems, and in museum and laboratory environments. Catch it now!

*1 767.5 mm viewing area, measured diagonally.
*2 Supported by V1.1 or later.

// True 4K (4096 x 2160) Resolution Panel

The PVM-X300 incorporates a 30-inch wide-viewing-angle IPS LCD panel delivering true 4K (4096 x 2160) resolution. This new professional video monitor also incorporates a RGB 10-bit panel with uniformity control, and can accurately display the industry-standard ITU-R BT.709 colour space.

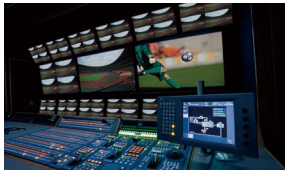
With its convenient size, you can easily carry the PVM-X300 to an onset site to monitor 4K resolution motion pictures. You can also achieve 4K monitoring in postproduction by putting the PVM-X300 monitor on a desk in the edit suite. From acquisition to editing, you'll have a true 4K workflow all the way. Soon you'll be wondering how you ever managed without the PVM-X300 in your production and postproduction environments!



4K Resolution image

Application images

Onset monitoring



OBVAN, Program/Preview

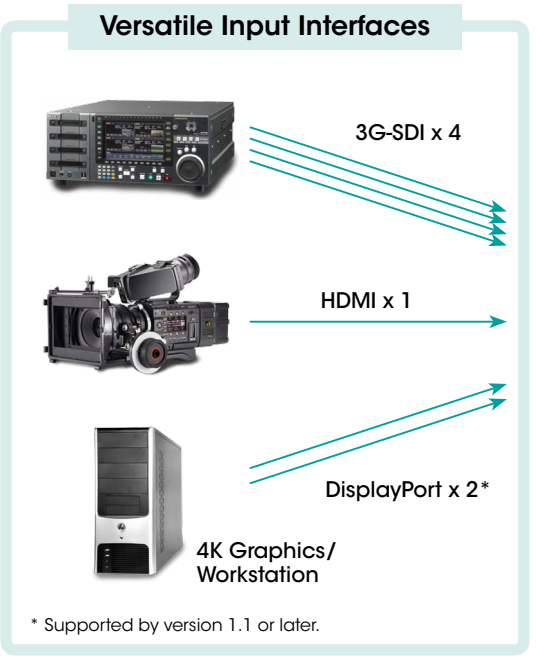
Edit suite

// Versatile Input Interfaces

The PVM-X300 4K monitor is equipped with variable interfaces including 3G/HD-SDI x 4 and HDMI x 4, allowing a direct connection with any type of 4K cinema camera and live product.

- **3G/HD-SDI x 4 inputs**
  This monitor supports 3G-SDI receiving a wide range of 3G-SDI signals up to 4096 x 2160, 50p/60p, 10-bit Y/C_B/C_R 4:2:2.
- **HDMI x 4 inputs**
  This monitor supports 4096 x 2160/24p and 3840 x 2160/24p, 25p, 30p* with one single HDMI cable. The PVM-X300 is also equipped with a unique capability – it can display 4096 x 2160/60p video signals with one single HDMI cable when connected to Sony's new PMW-F55 4K camera system.
- **DisplayPort* x 2 inputs**

* Supported by V1.1 or later.



PVM-X300
connector panel

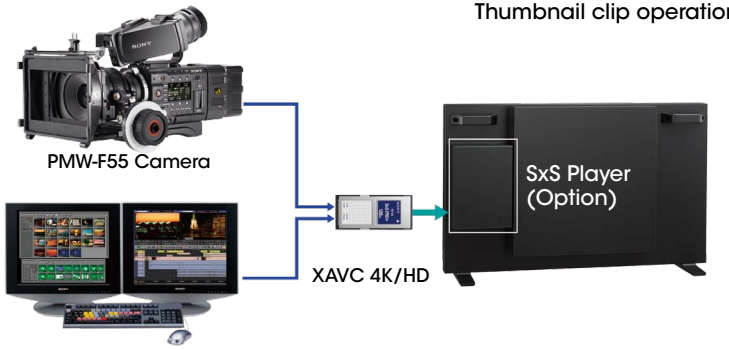
// SxS 4K Player* (option)

You can combine the PVM-X300 with an optional SxS 4K player for easy playback of 4K content. Simply insert the newly developed SxS PRO+ high-speed memory media, which supports XAVC™ 4K and XAVC HD high-frame-rate recording, into the player to achieve immediate viewing of 4K camera images and 4K programs from a nonlinear editing system. This frees you from using an expensive, fragile HDD external player and complicated wired connections.

Thumbnails of each clip recorded on SxS PRO+ media are displayed on the monitor and can be controlled by the monitor's control panel.

* Supported by V1.1 or later.

Thumbnail clip operation**



SxS 4K player (option)

**Future support. Images are simulated.

SxS PRO+ Media

This is newly developed memory card for XAVC recording. XAVC is a scalable video format that supports HD, 2K, QFHD, and up to true 4K resolution. The XAVC 4K format provides exquisite 4K image quality in storage-efficient file sizes.

// User-application-oriented Monitor Control

The PVM-X300 4K monitor provides a diverse range of monitor control, allowing you to choose from a wide selection of control systems:

- Direct control with the monitor's control panel
- Indirect control via a BKM-16R optional monitor control unit in OB vans and studio-sub systems*
- PC operation* for general business and industry applications

* Supported by V1.1 or later.

Onset acquisition/ Camera control

Monitor's Control Panel

OBVAN/Studio

BKM-16R

General applications

PC

// Control Panel Design

With its user-friendly control panel design, the PVM-X300 allows seven functions to be allocated to assignable buttons. Button lights are dimmable and indicator lights are on/off switchable – this means you can operate the monitor easily in a dark environment.

Input select buttons

Function buttons

(default setting)
F1 (BRIGHTNESS)
F2 (CONTRAST)
F3 (CHROMA)
F4 (BACKLIGHT)
F5 (FOCUS ASSIST)
F6 (VOLUME)
F7 (VIEW MODE)

Menu operation buttons and knob

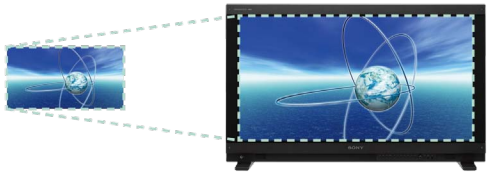
Switch and indicator

Display Mode

The PVM-X300 provides different display modes: 4K/QFHD and 2K/HD Zoom. You can use 4K/QFHD mode when you want to display 4096 x 2160 or 3840 x 2160 signal inputs. And you can use 2K/HD Zoom mode to zoom and display 2048 x 1080* or 1920 x 1080 signal inputs scaled to the 4K screen.

* Supported by V1.1 or later.

4K/QFHD Mode



2K/HD Zoom Mode

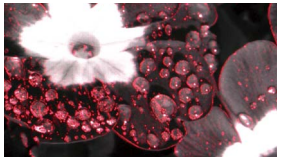
Zoom Function*

Each of the five divided areas of the screen can be magnified by scaling to full-screen size.

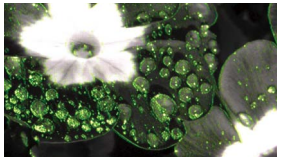
* Supported by V1.1 or later.

Camera Focus Function

The PVM-X300 can control the aperture level of a video signal, and display images on screen with sharpened edges to help camera focus operation. Further to this, the sharpened edges can be displayed in user-selectable colours (white, red, green, blue, and yellow) for more precise focusing.



Focus in red



Focus in green

Marker Settings*

This useful feature enables the PVM-X300 to display various markers including an aspect marker, safe area marker, and center marker.

* Supported by V1.1 or later.

images are simulated

Gamma Selection

The PVM-X300 supports Gamma 2.4 as specified by the ITU-R BT.1886. In addition, Gamma 2.2, 2.6, and S-Log2 can be selected.

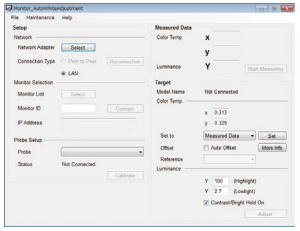
Robust and Lightweight Aluminium Body

A solid aluminium housing ensures durability, especially for outdoor usage.

Auto White Adjustment*1

The PVM-X300 4K monitor employs a software-based colour temperature (white balance) calibration function, which is called "Monitor_AutoWhiteAdjustment". Combined with a PC and commercially available colour analyzers*2, this function enables simple adjustment of the monitor's white balance.

*1 Supported with version 1.1 or later.
*2 Konica Minolta CA-210, CA-310, CS-200, DK-Technologies PM5639/06, X-Rite i1 (Eye-One) Pro/i1 Pro2, Photo Research PR-655/670, Klein K-10, and JETI specbos 1211. A connector is required for each colour analyzer.



Other Convenient Features

- Audio: Stereo speakers, line out, and stereo headphone jack
- VESA™ mounting (200 x 100 mm pitch)
- Timecode display*
- SDI-embedded 8-ch audio level meter display*
- Chroma Up

* Supported by V1.1 or later.

// Signal Format

HD-SDI / 3G-SDI

Signal System	Signal Format	
HD-SDI Single-link	1920 x 1080/24PsF*	10 bit YCBCR 4:2:2
	1920 x 1080/24P*	
	1920 x 1080/25PsF	
	1920 x 1080/30PsF*	
HD-SDI Quad-link	3840 x 2160/24PsF*	10 bit YCBCR 4:2:2
	3840 x 2160/25PsF	
	3840 x 2160/30PsF*	
	3840 x 2160/24p*	
	3840 x 2160/25p	
	3840 x 2160/30p*	
	4096 x 2160/24PsF*	
	4096 x 2160/25PsF	
	4096 x 2160/30PsF*	
	4096 x 2160/24p*	
	4096 x 2160/25p	
	4096 x 2160/30p*	
3G-SDI Single-link	1920 x 1080/24PsF*	12/10 bit YCBCR 4:4:4 12//10 bit RGB 4:4:4
	1920 x 1080/24P*	
	1920 x 1080/25PsF	
	1920 x 1080/30PsF*	
3G-SDI Quad-link	3840 x 2160/50p	10 bit YCBCR 4:2:2
	3840 x 2160/60p*	
	3840 x 2160/24PsF*	12/10 bit RGB 4:4:4 12/10 bit YCBCR 4:4:4
	3840 x 2160/25PsF	
	3840 x 2160/30PsF*	
	3840 x 2160/24p*	
	3840 x 2160/25p	
	3840 x 2160/30p*	
	4096 x 2160/50p	10 bit YCBCR 4:2:2
	4096 x 2160/60p*	
	4096 x 2160/24PsF*	12/10 bit RGB 4:4:4 12/10 bit YCBCR 4:4:4
	4096 x 2160/25PsF	
	4096 x 2160/30PsF*	
	4096 x 2160/24p*	
	4096 x 2160/25p	
	4096 x 2160/30p*	

* Compatible with 1/1.001 frame rates.

HDMI

Signal System	Signal Format
640 x 480p@60*1	12/10/8 bit RGB 4:4:4*2 12/10/8 bit YCBCR 4:4:4*2 12 bit YCBCR 4:2:2*2
720 x 480p@60*1	12/10/8 bit RGB 4:4:4*2 12/10/8 bit YCBCR 4:4:4*2 12 bit YCBCR 4:2:2*2
720 x 576p@50	
1920 x 1080p@24*1	
4096 x 2160p@24*1	8 bit RGB 4:4:4 8 bit YCBCR 4:4:4 12 bit YCBCR 4:2:2

*1 Compatible with 1/1.001 frame rates.
*2 RGB/YCBCR formats and 12/10/8 bit are detected and switched automatically.

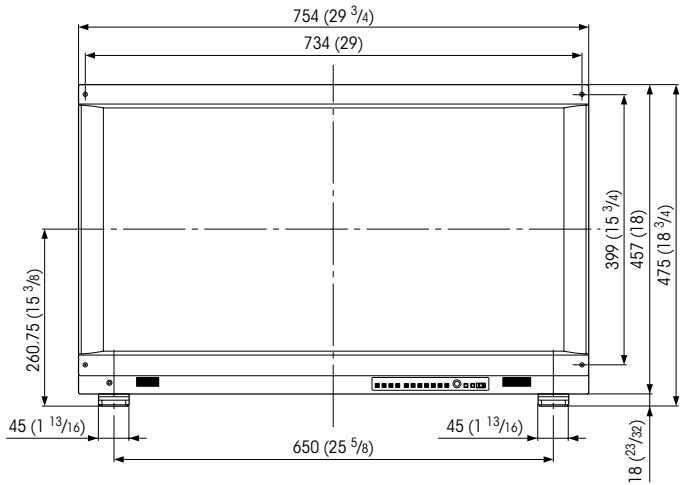
// Specifications

Picture Performance	
Panel	a-Si TFT Active Matrix LCD
Picture size (diagonal)	767.5 mm 30.2 inches
Effective picture size (H x V)	678.9 x 358.0 mm 26 3/4 x 14 1/8 inches
Resolution (H x V)	4096 x 2160 pixels
Aspect	17:9
Panel drive	RGB 10-bit
Viewing angle (panel specification)	89°/89°/89°/89° (typical) (up/down/left/right contrast > 10:1)
Input	
SDI	BNC (x4)
HDMI	HDMI (x4) (HDCP correspondence)
Output	
SDI	BNC (x4) Output signal amplitude: 800 mVp-p ±10% Output impedance: 75 Ω unbalanced
Audio monitor	Stereo mini jack (x1)
Speaker (built-in)	1.0 W (stereo)
Headphone	Stereo mini jack (x1)
General	
Power requirements	AC 100 V to 240 V, 2.3 A to 1.1 A, 50/60 Hz
Power consumption	Approx. 210 W (max.)
Operating temperature	0°C to 35°C (32°F to 95°F) Recommended: 20°C to 30°C (68°F to 86°F)
Operating humidity	30% to 85% (no condensation)
Storage and transport temperature	-20°C to +60°C -4°F to +140°F
Storage and transport humidity	0% to 90%
Operating, storage, and transport pressure	700 hPa to 1060 hPa
Dimensions (W x H x D)*	754 x 457 x 120 mm 29 3/4 x 18 x 4 3/4 inches 754 x 475 x 205 mm (with monitor feet) 29 3/4 x 18 3/4 x 8 1/8 inches (with monitor feet)
Mass	17 kg 37 lb 8 oz
Supplied accessories	AC power cord (1), AC plug holder (1), Operating instructions (1), CD-ROM (1)

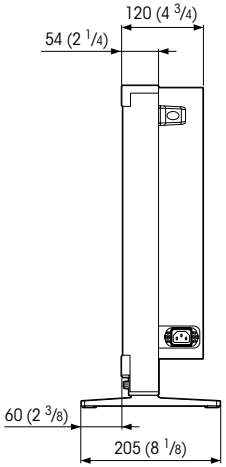
* The values for dimensions are approximate.

// Dimensions

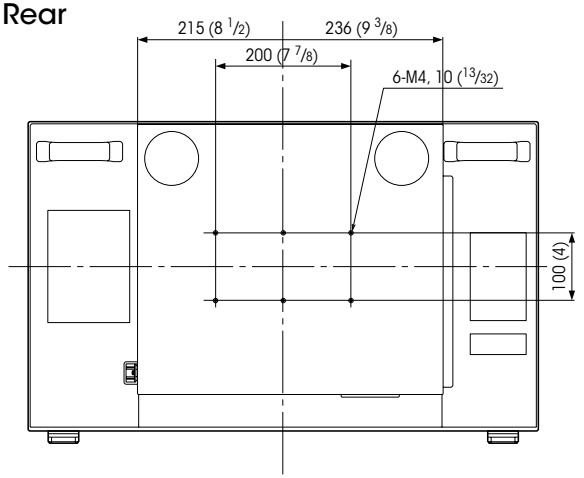
Front



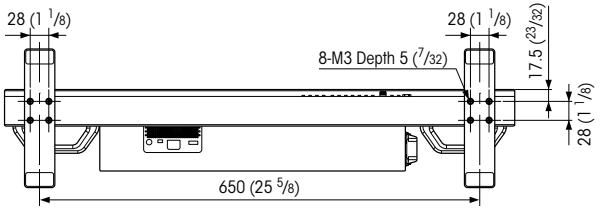
Side



Rear



Bottom



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The PVM-X300 is produced at Sony EMCS Corporation Kosai Site, which has received ISO 14001 Environmental Management System certification.

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